

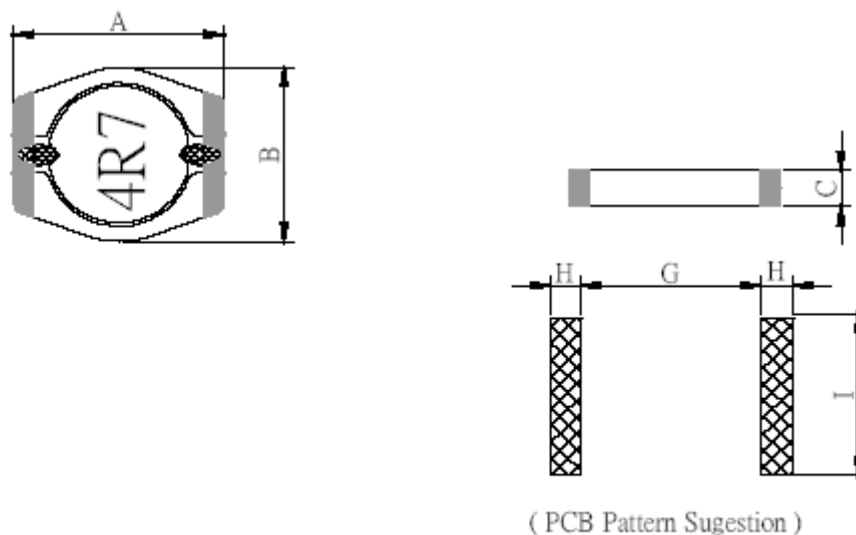
PSC3506

SMD Power Inductors Unshielded



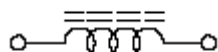
C/Severo Ochoa 33 - Parque Tecnológico de Andalucía. 29590 Campanillas .Málaga (Spain) **Phone** +34 951 231 320 Fax +34 951 231 321
E-mail: mar.villarrubia@grupopremo.com Web <http://www.grupopremo.com>

1. Configuration & Dimensions



Series	Dimensions [mm]								
	A(max.)	B(max.)	C(max.)	D(typ.)	E(typ.)	F(typ.)	G(ref.)	H(ref.)	I(ref.)
PSC3506	9.20	7.90	1.65	6.80	0.90	5.06	7.20	1.20	5.80

2. Schematic Diagram



3. Materials

- a.- Core : Ferrite DR Core
- b.- Base : Ceramic Base
- c.- Adhesive : Epoxy resin
- d.- Wire : Enamelled copper wire (class F)
- e.- Terminal : MoMn / Ni / Au
- f.- Remark : Lead content 200ppm max. include ferrite



4. General Specification

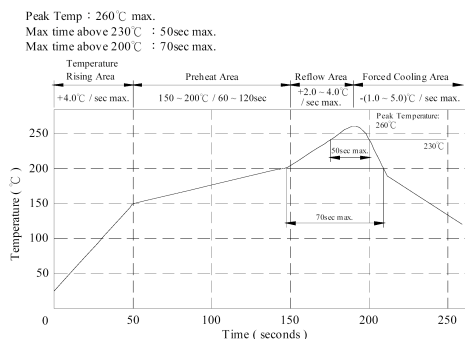
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- a.- Temp. rise : 40°C max.
- b.- Rated current : Base on temp. rise & $\Delta L/L0A = 10\%$ typ.
- c.- Storage temp. : -40°C ~ +125°C
- d.- Operating temp. : -40°C ~ +105°C
- e.- Resistance to solder heat : 260°C. 10 secs



5. Electrical Characteristics

PSC3506 (4.7μH – 220μH)

DWG No.	Inductance (μH)	Test Freq. L (KHz)	SRF (MHz) typ.	RDC (Ω) ±20%	Irms (A) max.	Isat (A) typ.
PSC3506 – 4R7M	4.7±20%	100	65	0.125	1.50	1.40
PSC3506 – 6R8M	6.8±20%	100	55	0.160	1.40	1.30
PSC3506 – 100M	10.0±20%	100	48	0.200	1.20	1.10
PSC3506 – 150M	15.0±20%	100	35	0.300	0.90	0.90
PSC3506 – 220M	22.0±20%	100	30	0.380	0.76	0.70
PSC3506 – 330M	33.0±20%	100	22	0.530	0.68	0.62
PSC3506 – 470M	47.0±20%	100	20	0.770	0.54	0.42
PSC3506 – 680M	68.0±20%	100	16	1.100	0.42	0.38
PSC3506 – 101M	100.0±20%	100	13	1.600	0.36	0.35
PSC3506 – 151M	150.0±20%	100	11	2.500	0.28	0.28
PSC3506 – 221M	220.0±20%	100	9	3.900	0.24	0.24

[Inductance tested at 0.1V] [Irms base on temp. rise 40°C] [Isat base on $\Delta L/L0A = 10\%$]

6. Curve

Inductance VS. DC Current Curve

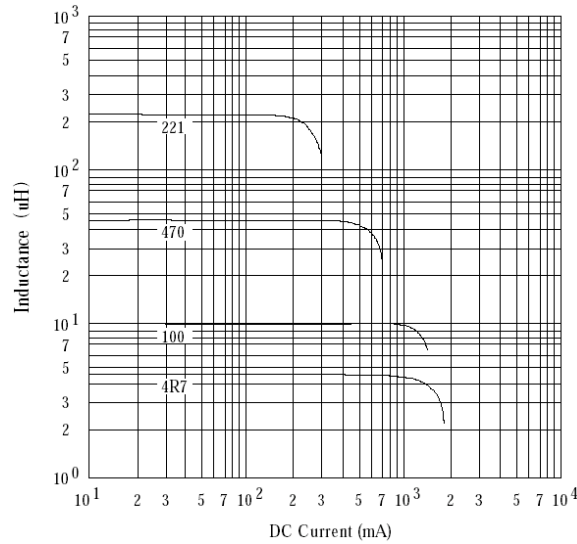
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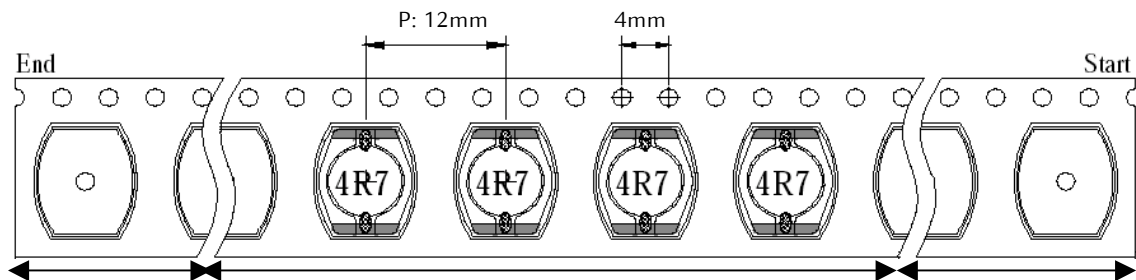


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7. Packaging Information



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SMD Power Inductors

PREMO

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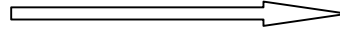


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Leader
no component
200 mm min.

Components

Trailer
no component
400 mm min.

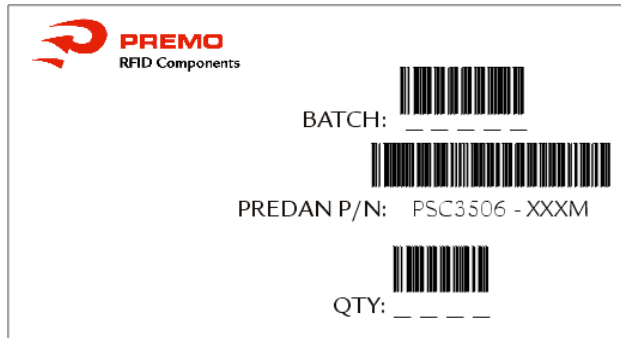


User direction of feed

Style	Dimensions [mm]						
	A	B	C	D	G	N	T
07 - 16	178	21±0.8	13	16	18 ⁺⁰	50 ⁻⁰	20.5

Series	Inner : Reel			Outer : Carton		
	Q'TY(pcs)	G.W.(gw)	Style	Q'TY(pcs)	G.W.(Kg)	Size(cm)
PSC3506	600	250	07 - 16	18,000	8.5	42 x 41 x 24

8. Labelling



9. Reliability Test

Test item	Specification	Test condition
Solderability	More than 90% of the terminal electrode shall be covered with fresh solder	Preheat : 150±25% for 60 seconds Solder : Sn96.5 / Ag3 / Cu0.5 or equivalent Solder temp. : 235±5°C Flux : Rosin Dip time : 4±1 seconds

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Thermal shock test (Temp. cycle)	Inductance shall not change more than $\pm 20\%$	$\frac{\text{Room temp.}}{15 \text{ minutes}} \longrightarrow \frac{-25 \pm 2^\circ\text{C}}{30 \text{ minutes}}$ $\frac{\text{Room temp.}}{15 \text{ minutes}} \longrightarrow \frac{85 \pm 2^\circ\text{C}}{30 \text{ minutes}}$ Total : 50 cycles
Humidity Resistance test		Temperature : $40 \pm 2^\circ\text{C}$ Humidity : 90 ~ 95% Applied current : Per specifications Time : 500 hours
High temp. Resistance test		Temperature : $105 \pm 2^\circ\text{C}$ Applied current : Per specifications Time : 500 hours

10. Edition Control

Edition	Date	Change description	Made by
1 st	31/08/06	Update Specification	Pablo Pozo